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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,866	07/22/2003	Yoshihiro Kato	010986.52582US	6399

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EXAMINER
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LUND, JEFFRIE ROBERT

ART UNIT	PAPER NUMBER
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1763

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/16/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/623,866

Applicant(s)

KATO ET AL.

Examiner

Jeffrie R. Lund

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,5 and 7-23 is/are pending in the application.
- 4a) Of the above claim(s) 9 and 13-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,7,8,10-12 and 20-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

1. The present application is a continuation-in-part of PCT/JP02/00429 filed January 22, 2002 and claimed priority to Japanese Patent Application 2001-14011 filed January 23, 2001. Since the parent application is not available to the Examiner to determine what matter was added as part of the continuation, the Examiner has reviewed the application assuming a priority date of July 22, 2003.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-3, 5, 7, 8, 10-12, and 21-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-3, 5, 7, 8, 10-12, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the relationship between the first diffusion portion, the second diffusion portion, the groove and through holes of the second diffusion portion, the first gas flow passage, and the second gas flow passage (claim 1). The Examiner believes that the Applicant is trying to claim the showerhead shown in figures 5-8, since this embodiment is the only embodiment that includes a partitioned hollow portion having a

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center and end portions connected to a first and second gas supply passages (claim 1); or a center and end portions connected to a first and second gas supply passages (claim 21). The Examiner notes the first gas supply passage bypasses the first diffusion portion and diffuses in the groove of the second gas diffusion portion and flows through the through holes to center hollow portion, while the second gas supply passage diffused by the gas in the first diffusion portion and bypasses the groove and its through holes of the second diffusion portion to the end of the hollow portion. These relationships are not claimed. Furthermore, it is not clear if the through holes are the same through holes for the first gas supply passage and the second gas supply passage. The applicant needs to clearly claim all the structure found in figure 5 and how the structural elements relate to each other.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 5, 10, and 20-23 are rejected under 35 U.S.C. 102(b) as being anticipate by Park, KR 2003001624 A.

Park teaches a processing system that includes: a chamber 301; a gas supply plate 430, which has a plurality of gas holes 433, and supplies a process gas into said chamber through the gas holes; a first diffusion portion 413 which diffuses the gas parallel (horizontal) to a major surface and includes a plurality of linear grooves 413a,

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413b formed in one side of a disk-like member 400 which are in communication with each other and include through holes 413a'; a second diffusion portion which leads gas diffused by the first diffusion portion to the gas holes and includes a groove in one side of a disk-like member which forms a hollow portion, can be formed on a single disk-like member with the first diffusion portion, and includes a partition member 431 which separates the hollow portion into a plurality of areas, including a center and end areas. The gas flows in mutually independent gas flow paths to the center or end areas of the chamber and the flow rates can be independently controlled. The gas can be supplied from a single source. (Abstract and figures)

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

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prior art under 35 U.S.C. 103(a).

8. Claims 7, 8, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park, KR 2003-001624 A, in view of Fujikawa et al, US Patent 5,595,606.

Park was discussed above.

Park differs from the present invention in that Park does not teach that the first diffusion portion is a plurality of linear holes formed by boring and sealing the end portion of each hole.

Fujikawa et al teaches that the linear holes are made by boring the linear holes and sealing the ends of the holes (column 6 lines 47-55).

The motivation for making the grooves of Park linear holes is to provide an alternate means of making the apparatus of Park.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the grooves of Park by boring and sealing the ends of the bores as taught by Fujikawa et al.

### ***Response to Arguments***

9. Applicant's arguments, see pages 10-15, filed October 20, 2006, with respect to the rejections of claims 1-3, 5, 7, 8, 10-12, and 20-23 under 102 and 103 have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, a new ground of rejection is made in view of Park, KR 2003-001624 A.

**Conclusion**

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited art teaches the technological background of the invention.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

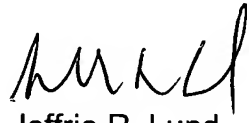
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrie R. Lund whose telephone number is (571) 272-1437. The examiner can normally be reached on Monday-Thursday (6:30 am-6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on (571) 272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-

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273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeffrie R. Lund  
Primary Examiner  
Art Unit 1763

JRL  
1/8/07